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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
PORTNER, VIRGINIA ALLEN	
ART UNIT	PAPER NUMBER
1645	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	12/22/2006	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/814,764	FIRST, ERIC R.	
	Examiner	Art Unit	
	Ginny Portner	1645	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 October 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11 and 13-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11,13-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-11, 13-19 and new claim 20 are pending.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Rejections Withdrawn

1. The rejection of new claims 15-18 as previously applied to claims 1-4, 6-10, 13 under 35 U.S.C. 102(b) as being anticipated by **Pohl et al**, is herein withdrawn in light of the amendment of the claims to recite "treating a pressure sore unrelated to contractures or spasticity".
2. Claims 15-17 rejected as previously applied to claims 1-3, 6-9, and 14 under 35 U.S.C. 102(b) as being anticipated by **Kennedy**, (1997), is herein withdrawn in light of the amendment of the claims to recite "treating a pressure sore unrelated to contractures or spasticity.
3. Claims 1-11, 13-14 rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claims 1-11, 13-14 have been amended to recite the phrase ""without reducing spasticity of a muscle, thereby treating a pressure sore" which has been asserted to find original descriptive support in lines 14-18 on page 23 of the instant Specification is herein withdrawn in light of the amendment of the claims to recite the phrase "less than an amount that would be used to paralyze a muscle" in a patient "not having contractures or spasticity".
1. Claims 15-19 rejected under 35 U.S.C. 102(b) as being anticipated by Borodic (PG-Pub 2002/017164) is herein withdrawn in light of the amendment of the claims to recite "treating a pressure sore unrelated to contractures or spasticity.

Response to Arguments/ Rejections Maintained

1. Applicant's arguments filed October 16, 2006 have been fully considered but they are not persuasive.

4. **Rejection Maintained**: The rejection of claims 7-11 under 35 U.S.C. 102(b) as being anticipated by Gassner et al (US Pat. 6,44,787) is traversed on the grounds that the Office Action has misconstrued Gassner and the wounds that are the subject of the disclosed treatments and is directed to minimizing the formation of scar tissue.

5. It is the position of the examiner that Gassner broadly defines the term "wound" to "include inflammatory lesions or other lesions adversely affected by muscle tension or

movement". Tense muscles associated with inflammatory lesion or other lesions would define a local vicinity of a pressure point. Gassner et al anticipates the instantly claimed invention because Gassner administers a reduced dose locally administered to prevent negative effects on wound healing associated with repeated microtrauma, caused by continuous displacement of injured tissue (see Gassner et al, col. 1, lines 44-55), which results in reduced inflammation, prevention of wound dehiscence together with enhanced would healing (see col. 3, lines 37-42). Gassner et al still anticipates the instantly claimed invention as now claimed.

6. While Applicant asserts that Gassner et al is only directed to prevention of scaring.

7. It is the position of the examiner that while Gasserner et al does address reduced scaring of wounds, Gasserner et al also seek to enhance the healing process in areas of skin that evidence inflammatory lesions or wounds (see col. 1, lines 44-56 and col. 3, lines 6-8). Gassner is directed to preventing "Repeated microtrauma" (col. 1, line 48) of injured tissues and therefore would reduce skin tension, reduce repeated microtrauma, reduce metabolic activity that results in prolonged inflammation and slowed healing, as well as reduce inflammation during the healing process (col. 3, lines 40-41). Gassner states "Since tension is one of the chief factors determining the degree of scar formation, this principle also holds true in skin lesions(col. 1, lines 17-19)." The amount of botulinum toxin (col. 3, lines 45-47) administered is an amount "sufficient to reduce tension within muscles in and near a wound site (see col. 3, lines 4-5)" and is not limited to just improving cosmetic appearance, but also includes "enhance wound healing by minimizing the adverse effect of muscle tension and movement on the wound".

8. Clearly Gassner et al through the local administration of a therapeutically effective amount of botulinum toxin to or in the vicinity of a pressure point (muscle tension or microtrauma) of a patient, serves to prevent development of pressure sores, and administers an amount of botulinum toxin that is 7 units or 20 units of botulinum toxin which is at the lower end of Applicant's range of administrable doses and would therefore

9. It is the position of the examiner that the scope of the claims encompassing treating areas or regions of inflammation to prevent the formation of pressure sores which is defined by Applicant's Specification at page 30, paragraph 2.

10. One embodiment provided by Gassner et al at is the administration of botulinum toxin to an unfavorable wound (Gassner et al, claim 26, col. 10), the unfavorable wound being defined to be a skin wound (col. 3, line 6), to include inflammatory lesions (see col. 3, line 6) and other lesions adversely affected by muscle tension or movement (col. 3, lines 7-8) and is not limited to laceration and bone fracture wounds as asserted by Applicant's representative.

11. It is the position of the examiner that Gassner et al discloses and claims the methods step of locally administering (see claim 1) an effective amount of botulinum toxin (see claims 2-4) to an unfavorable wound (see claim 26) which is defined to be a region of inflamed skin that needs wound healing (see Gassner et al, col. 4, lines 45-48 "local administration: col. 1, lines 44-55; col. 1, lines 64-65; col. 3, lines 5-8; col. 3, lines 40-41).

The dose of locally administered botulinum toxin is in a therapeutically effective amount of botulinum toxin (see col. 3, lines 66-67 and col. 4, lines 1-4), as well as 7 units and 20 units of botulinum toxin. Clearly the amount of Gassner et al is at the lower end of the number of unit of botulinum toxin now claimed and would therefore produce the same claimed effect, and Gassner

et al administers the botulinum toxin to a patient to the skin of a patient that is not related to spasticity or contractures. Gassner et al by all comparable data, still anticipates the instantly claimed invention as now claimed.

2. ***Rejection Maintained***: Claims 1-11, 13-19 and new claim 20 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention is traversed on the grounds that "only claims 4, 10 and 18 are subject to this rejection as they are the only claims that recite the units of botulinum administered to treat or prevent pressure sores.

3. It is the position of the examiner that while claims 4, 10, and 18 recite specific units of botulinum toxin, these claims depend from an independent claim which encompasses these limitations as the dependent claims are further limiting of the independent claims. Additionally, the claims that do not recite specific units are defined in the instant Specification to administer the ranges of botulinum toxin units recited in claims 4, 10 and 18, therefore all of the claims are included in this rejection based upon ranges recited in the claims and the definitions provided in the instant Specification. Even though the independent claims recite the phrase "therapeutically effective amount" the amount claimed in the dependent claims is not a therapeutically effective amount of serotype A botulinum toxin as the amount is effective to kill the patient and therefore is not a therapeutic amount. Clarification of what serotype may be administered to meet the

requirement of the newly submitted functional limitations and are non-lethal doses could obviate this rejection.

4. Applicant states that "based on factors such as size, weight, and responsiveness to therapy the amount and type of toxin administered can vary.

5. The examiner agrees in-part, but what is claimed is not claimed based upon size, weight and responsiveness to therapy, but compositions up to 3000 units and up to 25, 000 units of any serotype of botulinum toxin, to include serotype A botulinum toxin which would be lethal dose in human (see page S155, col. 2, paragraph 2) in light of Brin (1997) who teaches that a dose of nearly 3000 Units of botulinum toxin would be a lethal dose. Therefore, Applicant's traversal is not commensurate in scope with the instantly claimed invention, and the enablement rejection is maintained for reasons of record and responses set forth herein.

6. ***Rejection Maintained, Claim Rejections - 35 USC § 102*** The rejection of claims 7-11 under 35 U.S.C. 102(b) as being anticipated by Borodic (PG-Pub 2002/017164) is traversed on the grounds that: "The composition disclosed and administered in Borodic are not botulinum neurotoxins".

7. It is the position of the examiner that the claims must only administer a "botulinum toxin (all claims)" to include botulinum toxin type C, as now claimed in claims 2, 8,and 16. The botulinum toxin of the instant claims need not be a neurotoxin, but must be a botulinum toxin. Borodic claims the administration of botulinum toxin C (see claim 8), specifically botulinum toxin type C2 (see claims 9-10) wherein the toxin is administered to regional inflammation (see

claim 18), and is topically applied to the region (see claim 12). The region of skin is a region with inflammation, pain, edema, redness or itching (see claim 19). Administration of botulinum toxin to a region that evidences inflammation, redness and edema would be treated to inhibit these processes and would serve to prevent development of a pressure sore.

8. Borodic discloses the instantly claimed invention directed to a method that comprises the step of:

Administering locally (topically, see Borodic claim 12) to a patient a therapeutically effective amount (see page 5, [0048 "20-40" units]) of botulinum toxin (see Borodic claim 5 and claim 10 and page 5, [0050, type A, C and C2]), the amount being that which functions "without reducing spasticity of a muscle (see Borodic claim 6 "produces substantially no muscular weakening"), the local administration being to a pressure point (see Borodic claim 19"inflammation, pain, edema, redness and itching"). Borodic still anticipates the instantly claimed invention as now claimed.

New Grounds of Rejection

9. Claims 4, 10 and 18 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

10. The combination of claim limitations set forth in claim 4, 10 and 18 do not evidence original descriptive support in the instant Specification. Claim 4, 10 and 18 encompass the

administration of any serotype in the amount of 3000 units, 25,000 units and 3,000 units of botulinum toxin, respectively.

11. The instant Specification does not provide original descriptive support for the administration of serotype A in the amount of 3000 or 25,000 units, this amount being an "amount of botulinum toxin is less than an amount that would be used to paralyze a muscle (independent claim 1, 6, 7, 13 and all dependent claims)".

12. Administration of 3000 or 25,000 units of serotype A to a patient would paralyze a muscle and therefore the combination of claim limitations recited in newly amended claims does not evidence original descriptive support in light of the newly submitted combination of functional limitations recited in the independent claims.

13. Claims 4, 10 and 18 recite New Matter.

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

15. New Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rebar et al(2003/0021776 A1) in view of Borodic (PG Pub 2002/0187164).

Rebar et al describe, suggest and teach of method of treating a pressure sore (see [310]) with a composition that comprises a Clostridial toxin (see[0275] Clostridium perfringens iota toxin) together with a zinc finger protein (ZFP), the toxin being used to translocate the ZFP

across a cell membrane, but differs from the instantly claimed invention by failing to show the Clostridium toxin to be Clostridium botulinum toxin C.

Borodic teach Clostridium perfringens iota toxin, and Clostridium botulinum toxin C2 toxin to be functional equivalents (see Borodic [0028]) in an analogous art for the purpose of topically treating a patient for the reduction of inflammation with a composition that comprises a Clostridium toxin, specifically botulinum toxin C(see claims 8-9, 12).

It would have been obvious to the person of ordinary skill in the art at the time the invention was made, to modify the method of treating a pressure sore of Rebar et al that administers a Clostridial toxin containing composition with the Clostridial toxin, specifically Clostridium botulinum toxin C of Borodic because Rebar et al and Borodic are both directed to treating conditions associated with inflammation through the administration of a Clostridial toxin, and Borodic teaches the Clostridial toxin to Rebar et al to be a functional equivalent of Clostridium botulinum toxin C as both Clostridium perfringens iota toxin and Clostridum botulinum toxin C are both ADP-ribosylating toxins that evidence toxic effects without causing muscular weakness and Rebar et al teach that Clostridium toxins are useful in compositions for treating pressure sores (see Rebar et al, [0310] and[0275-276]).

In the absence of a showing of unexpected results, the person of ordinary skill in the art would have been motivated by the reasonable expectation of success of treating a pressure sore with Clostridium botulinum toxin C in the composition of Rebar et al because the Clostridial toxin containing compositions together with a ZFP fusion protein are taught to provide for wound healing (see Rebar et al, [0310] and the Clostridum toxin serves to translocate the composition across a cell membrane to insure the desired biological effect or treating pressure

sores is accomplished. Rebar et al in view of Borodic obviate the instantly claimed invention as now claimed.

Conclusion

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ginny Portner whose telephone number is (571) 272-0862. The examiner can normally be reached on flextime, but usually M-F, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Siew can be reached on (571) 272-0787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Vgp
December 19, 2006

MARK NAVARRO
PRIMARY EXAMINER